

**U.S. Department of Agriculture, Agricultural Research Service
Systematic Mycology and Microbiology Laboratory - Nomenclature Fact Sheets**

October 15, 2011

Phaeosphaeria maydis (Henn.) Rane, Payak & Renfro (Ascomycetes, Pleosporales)

≡ Sphaerulina maydis Henn. 1902

≡ Metasphaeria maydis (Henn.) Höhn. 1929

= Leptosphaeria zeicola Saccas 1951 Note: reduced to synonymy by Leuchtmann 1984

Distribution: On *Zea mays* (Poaceae); North and South America, Asia

Substrate: living leaves

Supporting Literature:

Leuchtmann, A. 1984. Über *Phaeosphaeria* Miyake und andere bitunicate Ascomyceten mit mehrfach querseptierten Ascosporen. Sydowia 37: 75-194.

Verified By: Erica On Mar 21, 2005

Geographic Distribution and Plant Hosts

We have records of *P. maydis* occurring on *Zea mays* in Brazil (Leuchtmann, 1984; Mendes, 1998), Florida (Carson, 1991), India, Mexico, and Peru (Leuchtmann, 1984). We do not have any culture collections or herbarium specimens at SBML for this taxon.

Other fungi reported as causing leaf spot of *Zea mays*:

Phoma subglomerata Boerema, Gruyter & Noordel. 1993 (see Boerema 2004)

Phoma zae-maydis Punith. 1990 (^o*Phyllosticta maydis* Arny & R.R. Nelson 1971) with teleomorph *Mycosphaerella zae-maydis* Mukunya & Boothr. (see Boerema 2004)

Phoma sorghina (Sacc.) Boerema, Dorenb. & Kesteren 1973 (see do Amaral, 2005)

Two other cosmopolitan *Phaeosphaeria* spp. found on members of the Poaceae have also been reported on *Zea mays*: *P. nigrans* (Roberge) L. Holm (Camara, 2002) and *P. luctuosa* (Niessl) Y. Otani & Mikawa (Leuchtmann, 1984; Camara, 2002). ITS sequences are available for both (Camara, 2002).

Additional Literature

Boerema, G.H., De Gruyter, J., Noordeloos, M.E., and Hamers, M.E.C. 2004. *Phoma* identification manual: differentiation of specific and infra-specific taxa in culture. CABI Publishing, 470 pages.

Camara, M.P.S., Palm, M.E., van Berkum, P., and O'Neill, N.R. 2002. Molecular phylogeny of *Leptosphaeria* and *Phaeosphaeria*. *Mycologia* 94 : 630-640.

Carson, M.L. 1999. Vulnerability of U.S. maize germ plasm to *Phaeosphaeria* leaf spot. *Pl. Dis.* 83 : 464-464.

Carson, M.L., Goodman, M.M., and Glawe, D.A. 1991. *Phaeosphaeria* leaf spot of maize in Florida. *Pl. Dis.* 75 : 968.

do Amaral, A.L., Dal Soglio, F.K., de Carli, M.L., and Barbosa Neto, J.F. 2005. Pathogenic fungi

causing symptoms similar to Phaeosphaeria leaf spot of maize in Brazil. Pl. Dis. 89 : 44-49.

Mendes, M.A.S., da Silva, V.L., Dianese, J.C., and et al. 1998. Fungos em Plants no Brasil. Embrapa-SPI/Embrapa-Cenargen, Brasilia, 555 pages.

Saccas, A.M. 1951. A propos de quelques champignons nouveaux parasites et saprophytes sur Mais. Rev. Pathol. Veg. Entomol. Agric. France 30 : 161-196

Report written by Erica Cline, 3/21/2005.